

a second acquired image of the target site based on the illumination using other than visible light.

99. A medical system as claimed in claim 98, wherein the illumination is electro-magnetic radiation in the infrared spectrum and the image acquisition component generates a second acquired image based on reflections and absorptions of said radiation.

100. A medical system as claimed in claim 98, wherein the illumination is ultrasonic radiation and the image acquisition component generates a second acquired image based on reflections and absorptions of said radiation.

101. A medical system as claimed in claim 98, wherein the conditioning component provides for selective conditioning of the energy profile of at least one of the acquired image, the output image and an intermediate image based at least in part on the acquired image generated from the illumination other than visible light.

102. A medical system as claimed in claim 97, wherein the conditioning component provides for selective conditioning of the energy profile so as to reduce differential picture brightness across all or selected portions of the output image. --

#### REMARKS

This Amendment is filed preliminary to the examination of the continuing application which is being filed concurrently. The continuing application is a continuation-in-part of pending application number 09/228,773, filed January 11, 1999, which is a division of application number

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08/791,637, filed January 31, 1997, now abandoned. The continuing application is filed by re-filing the original specification of application 08/791, 637, and amending same with this Amendment.

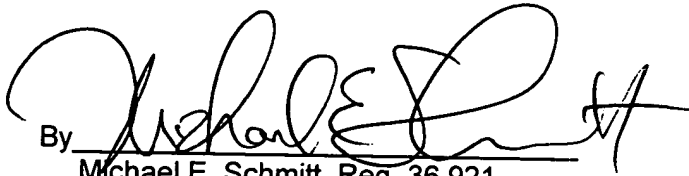
In this Amendment, Applicant has amended the specification, including Figures. The amendments include cancellation of claims 4-15, 19, 23 and 27-34, without prejudice. The amendments also include revision and addition of claims so as to explicate and clarify the subject matter claimed. The amendments also include addition of new Figure 22. The amendments includes corrections of the original specification so as to explicate and supplement the disclosures thereof. Applicant submits that all claims remaining in the case are supported by the specification, including as amended above.

Applicant notes that the ultimate parent application included a restriction requirement by which original claims 1-3, 16-18 and 20-22 were classified in Group I and original claims 24-26 were classified in Group IV. However, in prosecution of that parent, the separate classification of such claims was traversed. Moreover, the Examiner acceded to the traversal. Accordingly, the Examiner re-grouped claims 1-3, 16-18, 20-22 and 24-26 together, entitling Applicant to prosecute such subject matter in one case. Applicant has chosen to so prosecute such subject matter with this application.

Applicant requests that the Examiner (i) enter this Amendment, (ii) consider this continuing application, (iii) allow the remaining claims, including the new and amended claims, and (iv) pass this case to issue.

Applicant invites the Examiner to contact the undersigned by telephone to discuss any issues related to this Application.

Respectfully submitted,

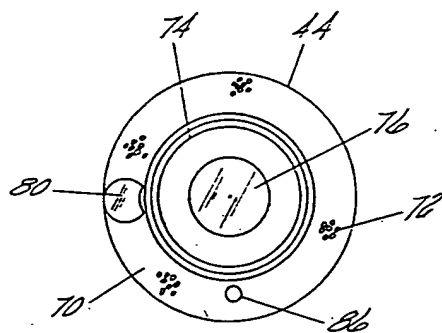
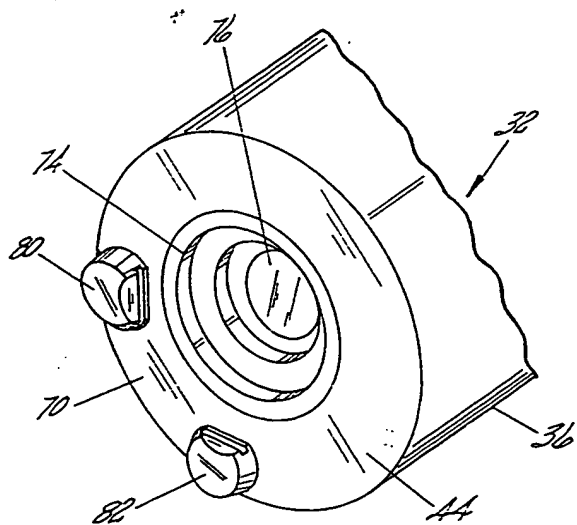
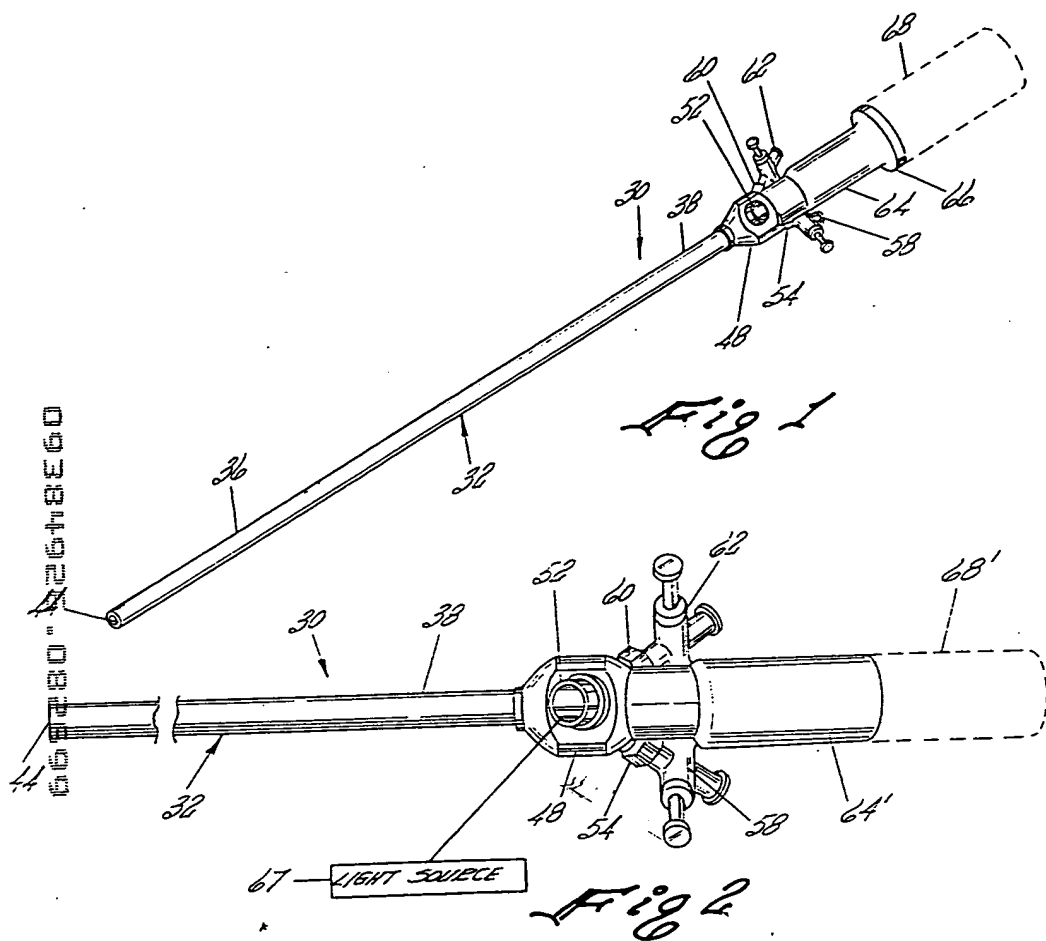
By 

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August 26, 1999

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Kotlyar, Miller

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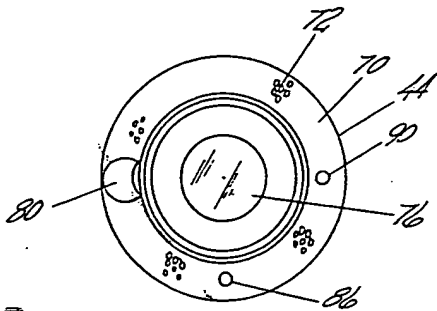


Fig 5

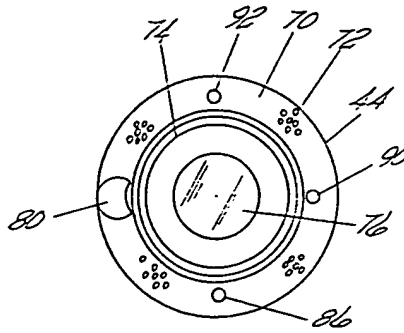


Fig 6

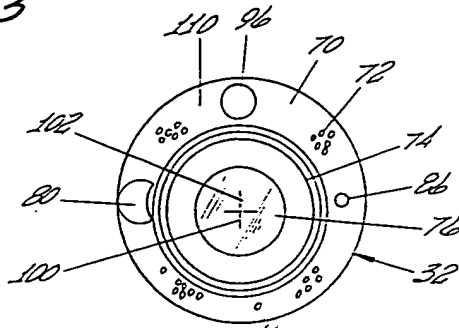


Fig 7

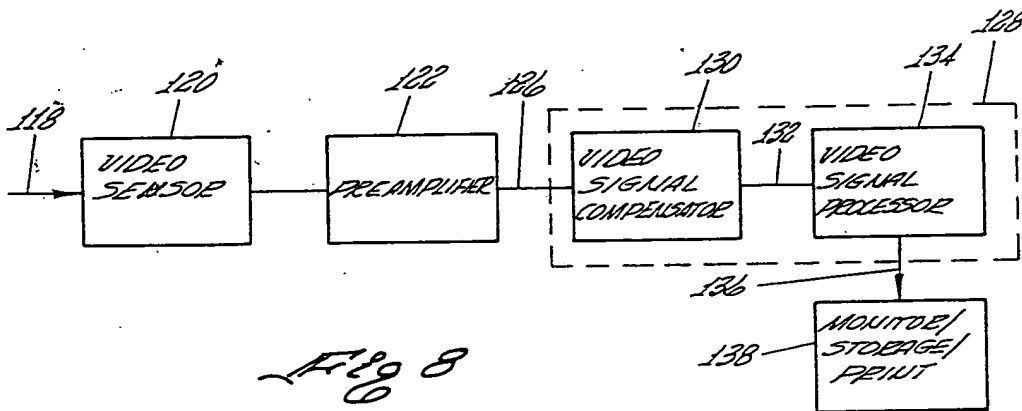


Fig 8

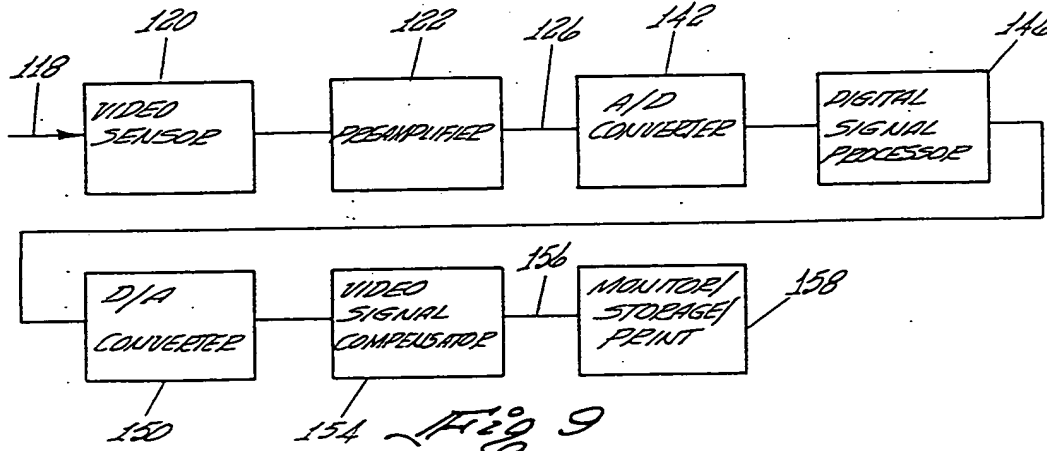
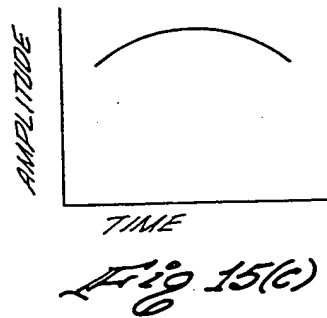
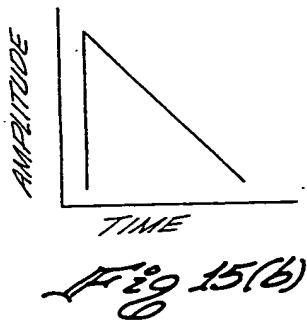
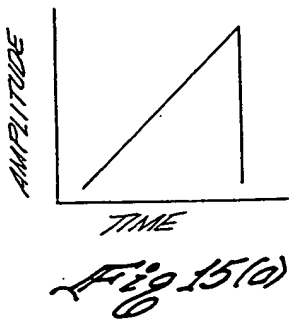
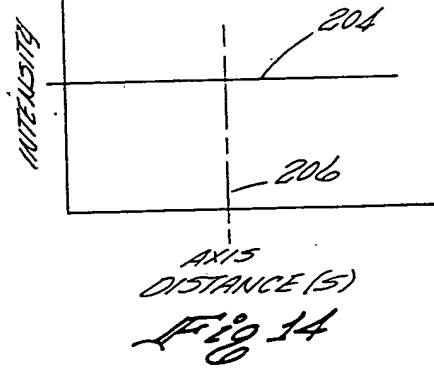
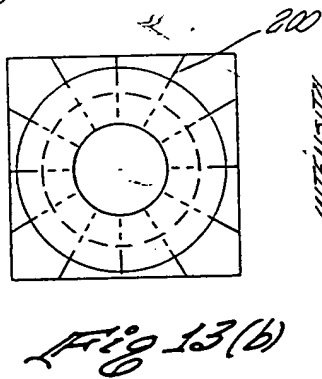
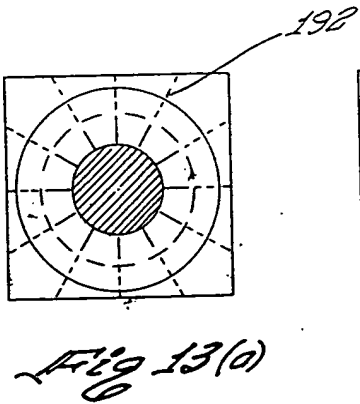
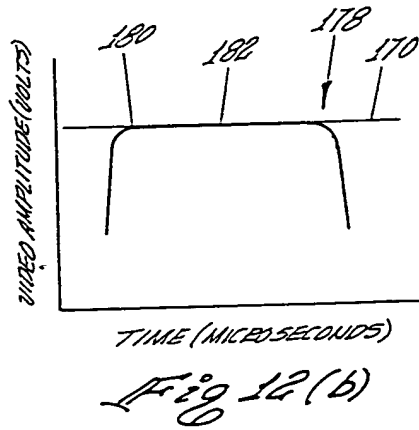
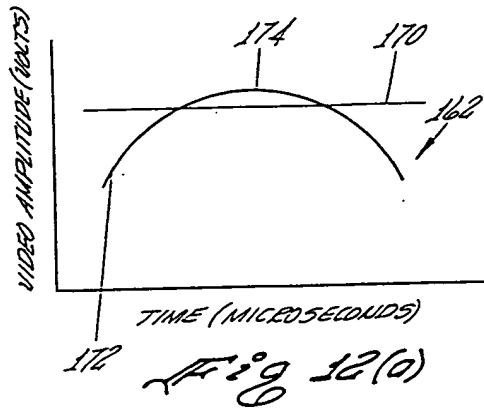


Fig 9

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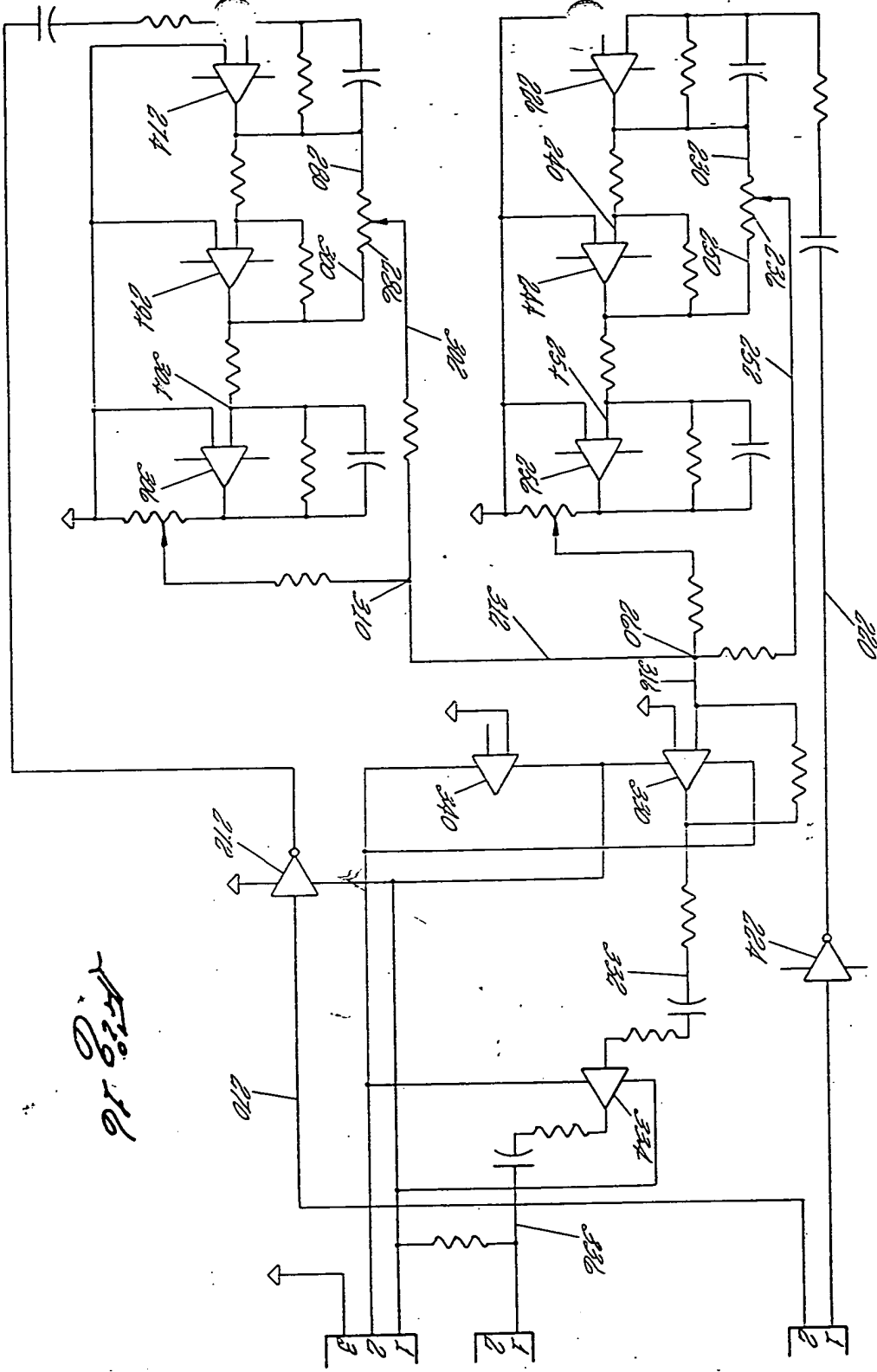


Fig. 16

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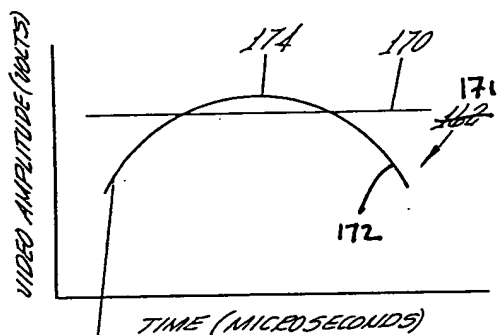


Fig 12(a)

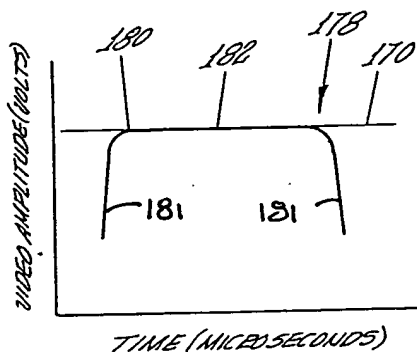


Fig 12(b)

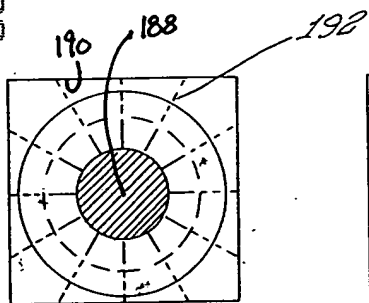


Fig 13(a)

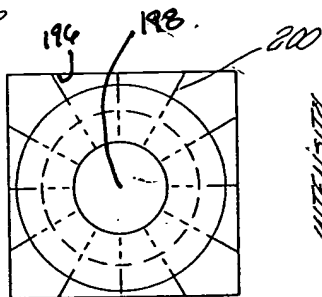


Fig 13(b)

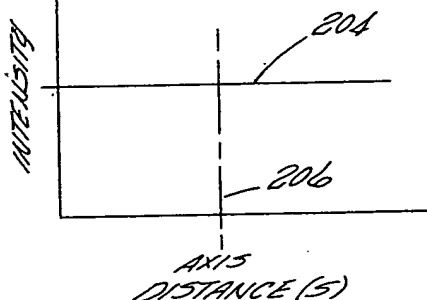


Fig 14

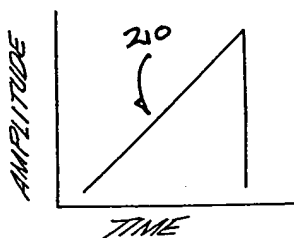


Fig 15(a)

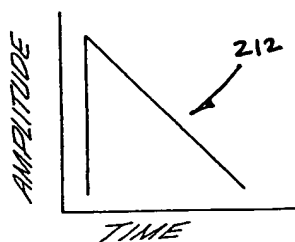


Fig 15(b)

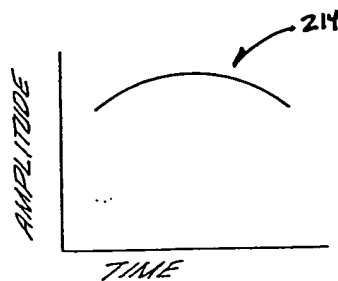


Fig 15(c)





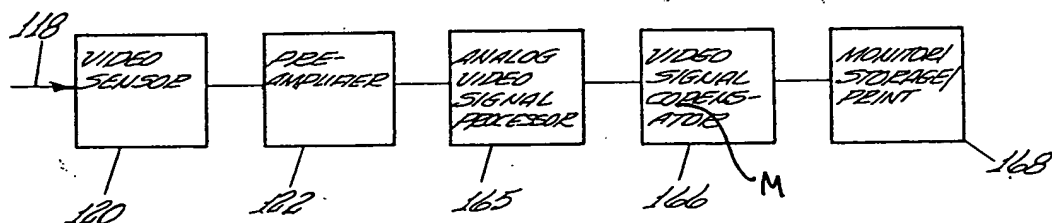
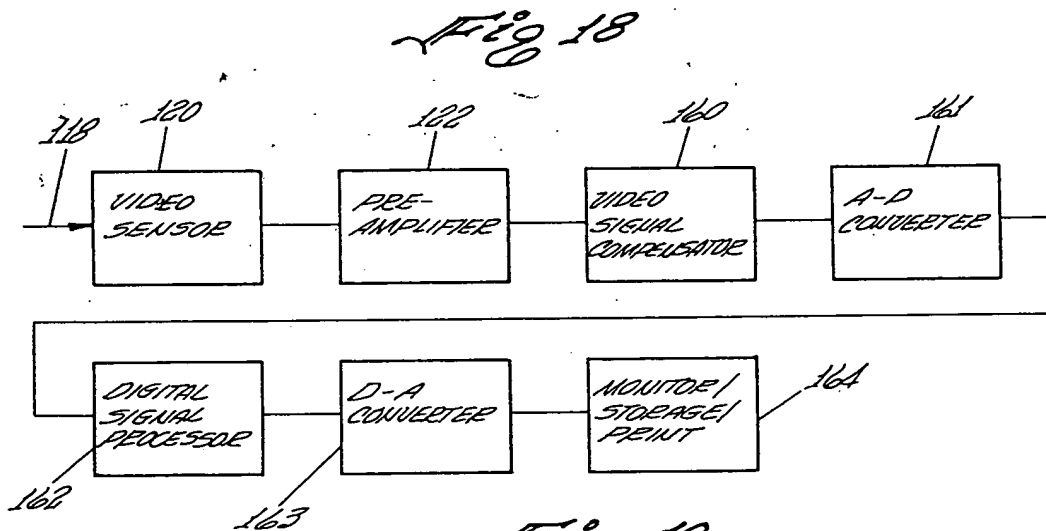


**Fig. 17**

The figure contains two block diagrams, labeled 100 and 200, representing alternative embodiments of the image processing system.

**Diagram 100 (Top):** This diagram shows a system with a CCD (100) connected to a PREAMP (402), which is connected to an ADC (406). The ADC (406) outputs to a dashed box containing a DSP (416). The DSP (416) is connected to a FREEZE FRAME (414) and a DAC (420). The DAC (420) outputs to a multiplier ( $\times/4$ ) (424). The multiplier (424) outputs to a second multiplier ( $\times/4$ ) (434). The second multiplier (434) outputs to a block labeled 440, which then outputs to a block labeled 442. The final outputs are  $Y_m$  and  $C_m$ .

**Diagram 200 (Bottom):** This diagram shows a similar system with a CCD (100), PREAMP (402), and ADC (406). The ADC (406) outputs to a dashed box containing a PIXEL MATRIX (414) and a PTCA MULTIPLEXER PROCESSOR (450). The PIXEL MATRIX (414) outputs to the PTCA MULTIPLEXER PROCESSOR (450). The PTCA MULTIPLEXER PROCESSOR (450) outputs to a DSP (416). The DSP (416) outputs to a block labeled 452, which then outputs to a block labeled 454. The final outputs are  $Y_m$  and  $C_m$ .



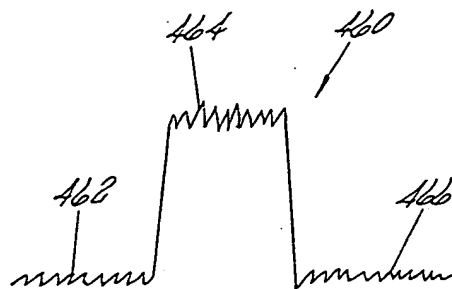


Fig 19

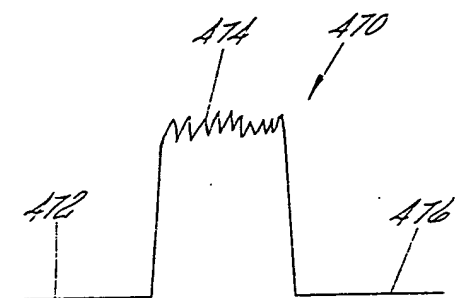
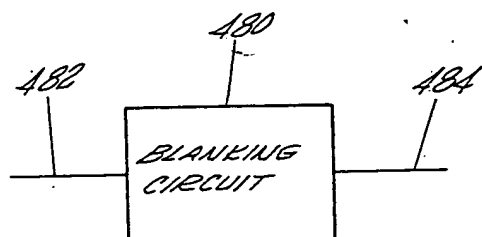


Fig 20



(BLOCK DIAGRAM)

Fig 21

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